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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,124	03/12/2004	Satoshi Murata	2803.70072	6940

24978 7590 10/11/2006

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EXAMINER

ROSSI, JESSICA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/800,124

Applicant(s)

MURATA ET AL.

Examiner

Jessica L. Rossi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/15/04</u> . | 6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> . |

Continuation of Attachment(s) 6). Other: online translations of JP '971 and JP '140.

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 3/14/03. It is noted, however, that applicant has not filed a certified copy of the 2003-70401 application as required by 35 U.S.C. 119(b).

Specification

1. The disclosure is objected to because of the following informalities:

Abstract, line 19: "cluig" should be --cling--.

Claim 1, line 7: --an-- should be inserted after "region in".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, it recites the limitation "said one electrostatic chuck" in line 14. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change this to --said at least one electrostatic chuck--.

Regarding claim 6, it recites the limitation "said one electrostatic chuck" in lines 3-4 and line 5. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change this to --said at least one electrostatic chuck--.

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Regarding claim 7, it recites the limitation "said one electromagnetic chuck" in line 3. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change this to --said at least one electrostatic chuck--.

Regarding claim 8, it recites the limitation "said one electrostatic chuck" in line 4. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change this to --said at least one electrostatic chuck--.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 6991699) in view of the collective teachings of Nitto Denko Corp (JP 8-169971, provided in IDS; online translation attached) and Toto LTD (JP 2000-349140, provided in IDS; online translation attached).

Lee teaches a method of producing a LCD by dripping a liquid crystal 12 in a region in an annular seal 14 formed on a first substrate 510 (column 11, lines 31-33; column 11, lines 19-21), preparing a second substrate 520 (column 11, lines 31-33; column 11, lines 19-21), arranging a first electrostatic chuck 122 and a second electrostatic chuck 121 in a vacuum chamber 110 (column 8, lines 29-31; column 8, line 56 – column 9, line 27), holding the first substrate by the first electrostatic chuck (column 11, lines 41-43; Figures 4A-10B), holding the second substrate by the second electrostatic chuck (column 11, lines 39-41; Figures 4A-10B),

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evacuating the vacuum chamber (column 12, lines 5-8), bonding the first and second substrates together in the vacuum chamber (column 14, lines 8-15), and opening the vacuum chamber to the atmosphere (column 14, lines 44-46).

It is unclear as to whether the reference teaches arranging a resin sheet on a surface of at least one of the first and second electrostatic chucks. However, Lee does teach that both the first and second electrostatic chucks may additionally have vacuum holes so that electrostatic and vacuum forces can be used to hold the substrates (column 8, line 61 – column 9, line 27).

It is known in the art to use electrostatic chucks and vacuum chucks to hold a substrate, such as an LCD substrate or semiconductor wafer, while the substrate is being processed, wherein a resin sheet is arranged on the surface of the electrostatic or vacuum chuck so as to prevent the chuck from creating blemishes on the surface of the substrate, as taught by the collective teachings of Nitto (teaches porous polyethylene resin sheet 5, vacuum chuck 3, LCD substrate or semiconductor wafer 4 - abstract; sections [0002 and 0004] of online translation) and Toto (teaches polyimide resin sheet 10, electrostatic chuck 1, semiconductor wafer 4 - abstract; sections [0010 and 0021] of online translation).

Therefore, it would have been obvious to arrange a resin sheet on the surface of at least one of the first and second chucks of Lee because such is known in the art as it relates to both electrostatic and vacuum chucks, as taught by the collective teachings of Nitto and Toto, and the resin sheet would prevent the chuck from creating blemishes on the surface of the substrate.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JESSICA ROSSI
PRIMARY EXAMINER

